

REMARKS

In the Office Action dated March 14, 2007, the specification was objected to because it failed to include section headings. To address this objection, the specification has been amended to include appropriate headings. The specification was objected to under 37 C.F.R. § 1.71 as not clearly describing the subject matter. Claims 1-2 were rejected under 37 C.F.R. § 112, first paragraph, as failing to comply with the enablement requirement, and rejected under 37 C.F.R. § 112, second paragraph, as being indefinite. Claims 1-3, and 10-11 were rejected under 37 C.F.R. § 102(b) as being anticipated by Hoshino (U.S. Pat. No. 5,651,306, hereinafter "Hoshino").

The Examiner has objected to the specification because it would not be clear how the gear 32 can engage with gear 30, thereby allowing the auxiliary traction wheel 21 to contact with the main wheel 18, since movement of axle 31 towards the gear 30 and wheel 18 appears hindered by interference of gears 33, 34 which are already in slight mutual engagement.

The specification does disclose (see page 5, lines 9-15) that the movement of axle 31 towards the gear 30 and wheel 18 is allowed because the two gear pairs 30, 32, and 33, 34 have teeth with different modules (i.e. teeth of gears 30, 32 have a

module that is less than the module of the teeth of gears 33, 34) so that, when the lever 24 is in a non-operational position (illustrated in Figures 3 and 4), gears 33, 34 are only slightly engaged and gears 30, 32 are disengaged but, when the lever 24 is pivoted to its operational position, the pivoting movement brings gears 33, 34 to complete engagement simultaneously allowing engagement of gears 30, 32.

The Examiner also rejected claim 1 as being anticipated by Hoshino.

It should be noted that the presently inserted feature for claim 1 of “*for powered movement of the strap*” relating to the powered main wheel 18 is duly supported by the passages of page 6, penultimate line to page 7, first line, of page 7, lines 8-10 and page 7, penultimate line to page 8, fourth line.

According to the wording of amended claim 1, the features of the strapping machine of the present invention can be schematized as follows for the sake of better understanding.

The strapping machine according to the claimed invention comprises:

- a) a strap extension, retrieval and pulling unit (13), which in turn comprises:*
 - b) a motor (36);*
 - c) a powered main wheel (18) around which the strap (12) winds partially,*

- c₁) the strap is subjected to a powered movement in opposite directions operated by the main wheel (18);*
- d) two selectable mechanisms for transmission of movement from the motor (36) to the main wheel (18);*
 - d₁) the first mechanism causing rotation of the main wheel (18) at a first speed and rotation of an auxiliary traction wheel (21) which is pressed against the main wheel (18), with interposition of the strap (12), near an input zone of the strap (12) on the main wheel (18) to effect pulling of the strap (12), and*
 - d₂) the second mechanism causing rotation in opposite directions of the main wheel (18) at a second speed greater than the first speed to effect extension and retrieval of the strap (12) while the auxiliary traction wheel (21) is at a distance from the main wheel (18); and*
- e) a control device (50) operating alternately the first or second mechanism to realize in rapid succession extension, retrieval and pulling of the strap (12).*

The peculiarity of the strapping machine according to the claimed invention is that two different mechanisms are present, which can be alternatively selected to

transmit movement from the motor 36 to the main wheel 18 (feature d), depending on which operational step has to be performed, i.e. pulling of the strap at low speed (feature d₁) or extension and retrieval thereof at high speed (feature d₂). Selection and sequential operation of the two mechanisms are controlled by a control device 50 (feature e).

It is the applicant's opinion that not only does Hoshino fail to disclose the above features d) to e), but also fails to disclose features c) and c₁).

In fact, Hoshino discloses a strapping machine with two rollers 37, 40 which are both permanently connected via a drive belt 35 to a motor 31 to be always rotated at the same speed and in the same direction, that is suitable to let the roller 37 move the strap at high speed in the feeding (extension) direction and the roller 40 move the strap at high speed in the retrieval direction.

Rollers 37, 40 can be either pushed against the strap or moved away from it, so that, depending on the current operational step to be performed by the machine, either roller 37 or roller 40 are transmitting powered movement to the strap, or both rollers are moved away, in their non-operational position

A third roller 39 is connected to motor 31 through a speed reduction gear 81 to rotate at low speed in the strap retrieval and tightening (pulling) direction, with a one-way clutch 32 being interposed between reduction gear 81 and roller 39 to allow free

rotation of roller 39 in the strap extension direction and powered rotation thereof in the opposite direction.

Operation of Hoshino's machine can be schematized as follows. During a strap extension step, powered movement of the strap (at high speed) is imparted by roller 37, while roller 40 is kept away from the strap and roller 39 can freely rotate in an anti-clockwise direction of Figure 3 (thanks to the one-way clutch 32), dragged by the strap itself. During the strap retrieval step, powered movement of the strap (at high speed) is imparted by roller 40, while roller 37 is kept away from the strap and roller 39 is accelerated with respect to its clockwise slow speed because roller 40 is pressed against its surface. During the strap tightening step, both rollers 37, 40 are kept away from the strap and powered movement of the strap (at low speed) is imparted by roller 39 rotating clockwise through reduction gear 81 and the one-way clutch 32.

It is apparent from the above that in Hoshino's machine no "*main wheel*" can be identified, which subjects the strap "*to a powered movement in opposite directions*". In fact, according to the teachings of Hoshino, three different wheels (rollers 37, 40, and 39) are used, each imparting powered movement to the strap in the appropriate direction and at the appropriate speed, depending on which operational step (strap extension, retrieval or pulling) is currently to be performed by the machine.

The applicant is not able to define which of rollers 37, 29, 40 of Hoshino could be intended as a “*main wheel*” in the sense identified in the description and claims of the present application. In particular, it should be noted that roller 39 (which appears to have been considered by the Examiner as the “*main wheel*”) is powered only in one direction, namely in the clockwise direction of Figure 3 corresponding to the strap retrieval and pulling direction, while in the opposite direction roller 39 is idle because of the presence of one-way clutch 32. Therefore, features c) and c₁) of claim 1 as above defined cannot be considered anticipated or suggested by Hoshino.

However, even if roller 39 were considered as a “main wheel” which moves (directly or indirectly) the strap during all the operational steps of Hoshino’s machine, it is applicant’s opinion that a person of ordinary skill in the art could not identify in Hoshino’s machine “*two selectable mechanisms for transmission of movement from the motor to the main wheel, with the first mechanism causing rotation of the main wheel at a first speed to effect pulling of the strap and the second mechanism causing rotation in opposite directions of the main wheel at a second speed greater than the first speed to effect extension and retrieval of the strap*”. In fact, the only mechanism for transmission of movement from the motor 31 to the wheel 39 in Hoshino’s machine is the unit composed by the speed reduction gear 81 and the one-way clutch 32 and, in any case, there is no control device designed to influence operation thereof.

Moreover, it should be noted that the auxiliary wheel 41 of Hoshino's machine cannot be defined as "*an auxiliary traction wheel*" as claimed in claim 1 of the present application, because it is not operated by motor 31 to perform a "traction", but is an idle roller, which is appropriately pressed against the powered wheel 39. In other words, the roller 41 is not a "traction" wheel, but a "pressure" wheel.

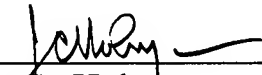
Therefore, also features d), d₁), and e) of claim 1 as above cannot be considered anticipated or suggested by Hoshino.

Based on the foregoing amendments and remarks, it is respectfully submitted that the claims in the present application, as they now stand, patentably distinguish over the references cited and applied by the Examiner and are, therefore, in condition for allowance. A Notice of Allowance is in order, and such favorable action and reconsideration are respectfully requested.

Serial No.: 10/549,937
Atty Docket No.: P70849US0

However, if after reviewing the above amendments and remarks, the Examiner has any questions or comments, he is cordially invited to contact the undersigned attorneys.

Respectfully submitted,
JACOBSON HOLMAN PLLC

By: 
John C. Holman
Reg. No. 22,769

Customer No.: 00136
400 Seventh Street, N.W.
Washington, D.C. 20004-2201
(202) 638-6666

Date: June 13, 2007
JLS/kad